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Amendment C

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Jan Vijg

Serial No.: 09/306,333

Group Art Unit: 1655

Filed: May 6, 1999

Examiner: Souaya, J.

For: BRCA1 and hMLH1 Gene Primer Sequences And Method For Testing

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Hon. Commissioner of Patents  
and Trademarks  
Washington, DC 20231

Sir:

Replying to the Office communication of July 31, 2001, please amend the application as follows:

Please delete SEQID NOS 121 and 122 in the clamping sequence listings as erroneously inadvertently listed.

Please amend claim 10 as follows:

--10. (Amended) A method for detecting mutations in BRA1 genes comprising providing PCR primers capable of amplifying the entire coding sequence of the BRCA1 genes; amplifying a test sample containing nucleotide sequences by long distance multiplex PCR with primers as listed in Table 2, producing a first set of amplification products; subjecting this first set of amplification products to short distance multiplex PCR to produce a second set of amplification products, using the primer pairs of Table 4 listed under the "PRIMER SEQUENCES" column with clamping and linking sequences listed under the "CLAMPING SEQUENCES" column of Table 4, for effecting this short distance PCR; and subjecting the second set of amplification products to two-dimensional gel electrophoresis to produce a characteristic spot pattern for a specific mutation in the BRCA1 gene.--

Please amend claim 4 as follows:

DO NOT ENTER

--4. (Amended) Test kits for enabling BRCA1 gene testing comprising primer pairs listed in Table 4 under "PRIMER SEQUENCES" column, mixed in about 20mM of Tris-HCl, 50mM KCl, 25pM of dNTP and 5% formamide.--

Claim 11, line 2, please cancel "and hMLH1".

Please withdraw claims 7-9 which are to be presented in a divisional application pursuant to the requirement for restriction.

### REMARKS

Applicant affirms the election of Group I.

Claim 10, and thus claim 11, also, has been amended to clarify the primers by referencing the specific titles in the tables--the claims also being restricted to BRCA1 genes and being provided with appropriate antecedent basis.

Claim 4-6 have been similarly amended also to overcome the 35 U.S.C. §112 indefiniteness rejection.

Since the Office has held that "using clamping and linking sequences...constitute unexpected results", though the earlier claims were "not drawn to such a limitation", applicant has now embodied such in amended claims 10 and 11, rendering them thus allowable over the cited art. As for claims 4-6, the amendments make plain which primer pairs of Table 4 are being used. (A handwritten claim correction page is annexed).

It would therefore appear that the application is now in condition for allowance, and such action is therefore respectfully requested.

Any costs incurred by this filing, including for any required extensions of time, petition for which is hereby made, may be charged to Deposit Account No. 18-1425 of the undersigned attorneys.

Respectfully submitted,

RINES AND RINES

By: 

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Date: September 26, 2001  
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